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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,755	01/05/2004	Jiin-Huey Chern Lin	LINJ3054/EM	1696

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EXAMINER	
ROE, JESSEE RANDALL	
ART UNIT	**PAPER NUMBER**
1742	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/750,755	CHERN LIN ET AL.	
	Examiner	Art Unit	
	Jessee Roe	1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 June 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,6-11,14-17 and 20-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,6-11,14-17 and 20-26* is/are rejected.

7)☒ Claim(s) *24 and 26* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of the Claims

Claims 1-3, 6-11, 14-17, and 20-26 are pending wherein claims 1, 3, 6, 9, 11, 15, 17 and 20 are amended; claims 25-26 are new; and claims 4-5, 12-13, and 18-19 are canceled.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 23, 2006 has been entered.

Claim Objections

Claims 24 and 26 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Rhenium (Re) was not contained in independent claim 17 and claim 17 recites the language "consisting essentially of".

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 3, 9, 11, 15, and 17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 1, 3, 9, 11, 15, and 17 contain the recitation "said alloy does not contain an intentionally added element selected from the Pt group." The Examiner notes that platinum group elements are Ru, Rb, Pd, Os, Ir, and Pt. The specification for the instant invention adds a euectoid beta stabilizing element selected from the group consisting of Fe, Cr, Mo, Co, Ni, Cu, Ag, Au, Pd, Si, and Sn and although Pd is a platinum group element, the specification does not enable the exclusion of the entire platinum group.

Claims 2, 6-8, 10, 14, 16, and 20-26 are rejected because of their dependence upon rejected base claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 6-10, 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitayama et al. (JP 62-199744) in view of Prasad (US 5,091,148).

In regards to claims 1-2, 7-10, 15-16 and 21-22, Kitayama et al. (JP '744) inherently disclose a titanium alloy composition having improved castability because Kitayama et al. (JP '744) disclose a method of making a titanium-base alloy consisting essentially of 0.05 – 2 weight percent of one or more elements among niobium, zirconium, hafnium, tantalum, and bismuth; one or more elements from the platinum group (ruthenium, rubidium, palladium, osmium, iridium, and platinum) in an amount of 0.01 to 0.12 weight percent (claim 1).

Kitayama et al. (JP '744) disclose a titanium alloy composition as shown above, but Kitayama et al. (JP '744) do not specify wherein the alloy would be used a medical device.

Prasad ('148) discloses an analogous titanium alloy for forming a medical device (dental casting) (abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the alloy of Kitayama et al. (JP '744) in to the form of a medical device as suggested by Prasad ('148) because Prasad ('148) discloses that an analogous titanium alloy can be used to form a medical device (dental casting and dental implants) and in order to obtain the predictable result of improved surface (crevice) corrosion resistance.

In regards to claims 3, 11 and 17, Kitayama et al. (JP '744) inherently disclose a titanium alloy composition having improved castability because Kitayama et al. (JP '744) disclose a method of making a titanium-base alloy consisting essentially of 0.05 – 2 weight percent of one or more elements among niobium, zirconium, hafnium, tantalum, and bismuth; one or more elements from the platinum group (ruthenium, rubidium, palladium, osmium, iridium, and platinum) in an amount of 0.01 to 0.12 weight percent, and one or more elements from nickel and cobalt (claim 2).

Kitayama et al. (JP '744) disclose a titanium alloy composition as shown above, but Kitayama et al. (JP '744) do not specify wherein the alloy would be used a medical device.

Prasad ('148) discloses an analogous titanium alloy for forming a medical device (dental casting) (abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the alloy of Kitayama et al. (JP '744) in to the form of a medical device as suggested by Prasad ('148) because Prasad ('148) discloses that an analogous titanium alloy can be used to form a medical device (dental castings and dental implants) and in order to obtain the predictable result of improved surface (crevice) corrosion resistance.

In regards to claim 6, Kitayama et al. (JP '744) disclose a titanium alloy composition consisting essentially of titanium, niobium, and bismuth (claim 1).

In regards to claims 14 and 20, Kitayama et al. (JP '744) disclose a titanium alloy composition consisting essentially of titanium and niobium (claim 1).

Claims 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitayama et al. (JP 62-199744) in view of Prasad (US 5,091,148) as applied to claim 3 above, with evidence from the ASM Handbook Volume 2.

In regards to claims 23 and 24, Kitayama et al. (JP '744) in view of Prasad ('148) disclose a titanium alloy composition consisting essentially of titanium and one or more elements among niobium, zirconium, hafnium, tantalum, and bismuth in a total amount of 0.05 to 2.0 weight percent, but Kitayama et al. (JP '744) in view of Prasad ('148) do not specify wherein iron would be included.

The ASM Handbook Volume 2 discloses that niobium would have 0.12 ppm by weight iron as impurity; tantalum would have 0.3 ppm by weight iron as an impurity; titanium would have 1.5 ppm by weight iron as an impurity; and zirconium would have 30 ppm by weight iron as an impurity (Table 2, pg. 1096).

Therefore, it would be expected that the titanium alloy, as disclosed by Kitayama et al. (JP '744) in view of Prasad ('148), would also have iron present, as disclosed by the ASM Handbook Volume 2, because iron impurities would be found in titanium, zirconium, niobium, and tantalum metals, as evidenced by the ASM Handbook Volume 2 (pg. 1096, Table 2).

In regards to claims 25 and 26, Kitayama et al. (JP '744) in view of Prasad ('148) disclose a titanium alloy composition consisting essentially of titanium and one or more elements among niobium, zirconium, hafnium, tantalum, and bismuth in a total amount of 0.05 to 2.0 weight percent, but Kitayama et al. (JP '744) in view of Prasad ('148) do not specify wherein iron would be included.

The ASM Handbook Volume 2 discloses that niobium would have 0.12 ppm by weight iron as impurity; tantalum would have 0.3 ppm by weight iron as an impurity; titanium would have 1.5 ppm by weight iron as an impurity; and zirconium would have 30 ppm by weight iron as an impurity (Table 2, pg. 1096).

Therefore, it would be expected that the titanium alloy, as disclosed by Kitayama et al. (JP '744) in view of Prasad ('148), would also have iron present, as disclosed by the ASM Handbook Volume 2, because iron impurities would be found in titanium, zirconium, niobium, and tantalum metals, as evidenced by the ASM Handbook Volume 2 (pg. 1096, Table 2).

With respect to the presence of platinum group elements in Kitayama et al. (JP '744), it would have been obvious to one of ordinary skill in the art at the time the invention was made to omit the platinum group element(s) where improved resistance to surface (crevice) corrosion is not required or desired. See MPEP 2144.04 II (A).

Response to Arguments

Applicant's arguments filed 4 June 2007 have been fully considered but they are not persuasive.

First, the Applicant primarily argues that Kitayama et al. (JP '744) in view of Prasad ('148) do not provide a titanium alloy composition having improved castability and merely recites the purpose or intended use of the composition. See MPEP 2111.02 II.

Second, the Applicant submitted two certificates of the claimed product to further support the amendments to the claims. In response, objective evidence must be factually supported by an appropriate affidavit or declaration to be of probative value. See MPEP 716.01 (c).

Third, the Applicant primarily argues that there is no suggestion to use the alloy with a noble metal. In response, the Examiner notes that ruthenium is both a noble metal and a member of the platinum group (see abstract of Prasad ('148) and pg. 6 of Kitayama et al. (JP '744) translation.).

Fourth, in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessee Roe whose telephone number is (571) 272-5938. The examiner can normally be reached on Monday-Friday 7:30 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Roy V. King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JR

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